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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,255	02/07/2001	Klaus Gaedke	PD000003	6369
7590 05/06/2005				
Joseph S. Tripoli Patent Operations Thomson Multimedia Licensing, Inc. CN 5312 Princeton, NJ 08543-0028.			EXAMINER REKSTAD, ERICK J	
			ART UNIT 2613	PAPER NUMBER
DATE MAILED: 05/06/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

### Office Action Summary

Application No.

09/778,255

Applicant(s)

GAEDKE ET AL.

Examiner

Erick Rekstad

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)  
C) ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

This is a Supplemental Final Action in response to the Request for Reconsideration filed on March 30, 2005 in which claims 1-10 are presented for examination.

#### ***Response to Arguments***

Applicant's arguments, see After Final Amendment, filed March 30, 2005, with respect to the rejection(s) of claim(s) 1-3 and 6-8 under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,566,208 to Balakrishnan in view of US Patent 6,061,404 to Yonemitsu et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. As claims 1 and 6 are the independent claims, all rejections of the dependent claims have also been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of US Patent 6,535,251 to Ribas-Corera and US Patent 5,926,205 to Krause et al.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1, 2, 4, 6, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,535,251 to Ribas-Corbera in view of US Patent 5,926,205 to Krause et al.

[claims 1 and 6]

As shown in Figures 5 and 6, Ribas-Corbera teaches an apparatus and method for bitrate control in a video or audio encoder having an encoded-data buffer (54, Fig. 5), including the steps:

Using a first control signal representing the current filling level of said encoded-data buffer to control the video or audio encoder output bitrate by corresponding adaptation of at least one encoding parameter using in said video or audio encoder (Col 3 Line 62-Col 4 Line 3, Col 9 Line 59-Col 10 Line 22).

Ribas-Corbera further teaches the encoding parameter being controlled by the Channel Rate (46 and 68, Fig. 5) in order to adjust the encoding based on the maximum rate through the channel (Col 5 Lines 42-46, Col 9 Lines 35-46, and Col 10 Lines 23-49). Ribas-Corbera does not teach a buffer for the channel, combining with another encoded video or audio data, or the recording of the data.

As shown in Figure 7, Krause teaches a video-on-demand system which combines multiple encoded streams (Encoder 1-N, Fig. 7) including a channel buffer (92) in order to control the quality of the streams and perform statistical multiplexing (Col 4 Lines 53-65, Col 10 Line 62-Col 11 Line 20). The combined stream is further stored in a data storage (68) for later use by the video-on-demand system (Col 5 Lines 2-4, Col 8 Lines 34-40, Col 9 Lines 42-47). It would have been obvious to one of

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ordinary skill in the art at the time of the invention to combine the encoding method of Ribas-Corbera with the video-on-demand system of Krause in order to ensure encoding compatible with a channel rate.

[claims 2 and 7]

Ribas-Corbera teaches the use of Mpeg-2 (Col 3 Lines 62-67, Col 5 Line 14). Krause teaches the use of Mpeg-2 (Col 7 Line 64). It would have been further obvious to combine the system of Ribas-Corbera and the system of Krause as both use the Mpeg-2 encoding standard.

[claims 4 and 9]

Ribas-Corbera teaches the adjusting of the characteristics of the quantizer as the encoding parameter used to prevent overflow and underflow of the buffer (Col 3 Lines 44-47). Krause also teaches the adjusting of the characteristics of the quantizer in order to maintain a channel rate (Col 10 Line 62-Col 11 Line 14). It would have been further obvious to combine the system of Ribas-Corbera and the system of Krause as both systems use the characteristics of the quantizer to adjust the bitrate.

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ribas-Corbera and Krause as applied to claims 1 and 6 above, and further in view of US Patent 6,584,272 to Fokushima et al.

[Claims 3 and 8]

Ribas-Corbera is silent on the storage of the encoded video. Krause teaches the storage of the encoded data stream on a disk or some other form of mass storage (Col

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5 Lines 2-4, Col 8 Lines 34-40). Ribas-Corbera and Krause do not teach the storage of the data stream on a dvd.

Fokushima teaches the recording of Mpeg-2 onto a disc-type recording medium such as a DVD-Ram as prior art (Col 1 Lines 15-22). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the DVD-Ram of Fokushima as the mass storage device of Krause as DVD-Ram is a well known storage medium for Mpeg-2.

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ribas-Corbera and Krause as applied to claims 1 and 6 above, and further in view of US Patent 6,584,272 to Fokushima et al., US Patent 5,661,526 to Hamamoto et al. and US Patent 5,805,763 to Lawler et al.

[claims 5 and 10]

Ribas-Corbera and Krause teach the method and apparatus for bitrate control in a video or audio encoder as shown for claims 1 and 6. Ribas-Corbera and Krause do not teach the data stream input to said video or audio encoder is an MPEG data stream and includes data —e.g. EPG data- concerning the temporal length or data concerning the amount of data for a program to be recorded, from which data, based on the initial or currently remaining program length and a desired average data rate, and based on the initial or currently remaining storage capacity for this program on said storage medium, said at least one encoding parameter is additionally controlled.

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As shown in Figure 9, Hamamoto teaches a recording system which adjusts the recording quality based on the amount of remaining tape. Hamamoto further teaches

the use of program information provided in the NTSC broadcast signal to obtain the length of the desired program (Col 3 Lines 49-60, Col 6 Lines 10-25 and 45-59, Fig. 10). Hamamoto does not teach the input signal is an mpeg stream. Hamamoto further does not teach the recording on a disk.

Fukushima teaches the method of determining the remaining amount of space on a disk and adjusting the encoding process in order to fit a desired amount of broadcast video on the disk (Col 2 Lines 21-29 and 36-43, Col 4 Lines 7-11 and 59-64, Col 7 Lines 5-17, Figs. 1, 3, 4 and 6). Fukushima further teaches the use of MPEG-2 encoding as the desired format of the video for storage (Col 1 Line 66-Col 2 Line 8). Fukushima does not teach specifically how to adjust the encoding process. As shown above in the rejection of claims 1 and 6, Ribas-Corbera and Krause teach the adjusting of the quantizer in order to reduce the quality and thus bit-rate of the mpeg stream. It would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the quantizer in order to store the program on the remaining space on the disk. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method and system of Ribas-Corbera and Krause with the method of Fukushima in order to adjust the recording of a broadcast video stream based also on available disk space. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method and apparatus of Ribas-Corbera, Krause and Fukushima with the program time detection of Hamamoto in order to obtain the time of the program automatically and adjust the recording based on the remaining time and

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available disk space. Fukushima does not teach the input stream is an mpeg stream including EPG data.

Lawler teaches the use of an analog video signal or a digital video signal in the standard MPEG-2 format containing EPG data in order to control the recording of a program (Col 3 Lines 63-67, Col 4 Lines 35-50, Col 7 Lines 10-19, Col 12 Lines 29-43 and 58-67, Col 13 Lines 13-25, Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method and system of Ribas-Corbera, Krause, Fukushima and Hamamoto with the digital video signal of Lawler as the digital mpeg signal is a well known alternative to analog signals.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 571-272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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